

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001395**Date Inspected:** 25-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1400**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Fu Yu Hong**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower Mock-up**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

**Bay II****Tower Mock-up 77 M**

The QA inspector witnessed ZPMC QC representative Cai Xin Xin performing magnetic particle testing (MT) on the root passes at the weld joints MUA-MA1F/F-2, 3, 5 and 6. Mr. Cai Xin Xin found that the areas tested in compliance with contract documents. Note: The QA inspector observed that Mr. Cai Xin Xin was not applying MT powder in such a manner that a light uniform, dust-like coating settles upon the surface of the part/piece (while it was being magnetized) and the excess dry powder was not removed with the preferred care to avoid blowing relevant indication.

The QA inspector performed 50 % of MT verifications at the locations mentioned above. The QA inspector found that welds joints MUA-MA1F/F-2, 3, 5 and 6 appeared to be in compliance with the contract documents. The QA inspector generated a TL\_6028 on this date.

**Tower 23 Meters Elevation**

The QA inspector observed ZPMC performing heat straightening operations on the diaphragm plates p261-1 and p546. The QA inspector performed random verifications of ZPMC heat straightening operations. The QA inspector observed that ZPMC heat straightening operations appeared to be in accordance with the Contract documents.

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Tower Splice 114 M Mock-up upper and lower segments. The QA inspector performed dimensional verifications with the assistance of Caltrans QA inspector Larry Viars at Tower splice assembly at the junction of the upper and lower segments. The QA inspector recorded a maximum of 5 mm maximum at the junction of the skin D at the interior of the 114 M Mock-up. Later, the QA inspector had a conversation with Caltrans QA inspector Greg Bertlesman. Mr. Greg Bertlesman informed that he verified the offset at the outside of the skin D (area accessible) and he measured an offset of 5 mm maximum. The QA Inspector had a conversation with the Task Leader Robert Cuellar. The QA inspector informed Mr. Robert Cuellar that the maximum offset found at the junction of the upper and lower 114 M segments was 5mm.

### OBG Bay # 3

The QA inspector observed ZPMC performing tack welding operations with the flux cored arc welding process at the bottom plate BP-020-01, Panel PL-49A, weld joints BP-020-001-042.

### Summary of Conversations:

As noted above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Acuna, Alfredo	Quality Assurance Inspector
<b>Reviewed By:</b>	Cuellar, Robert	QA Reviewer

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